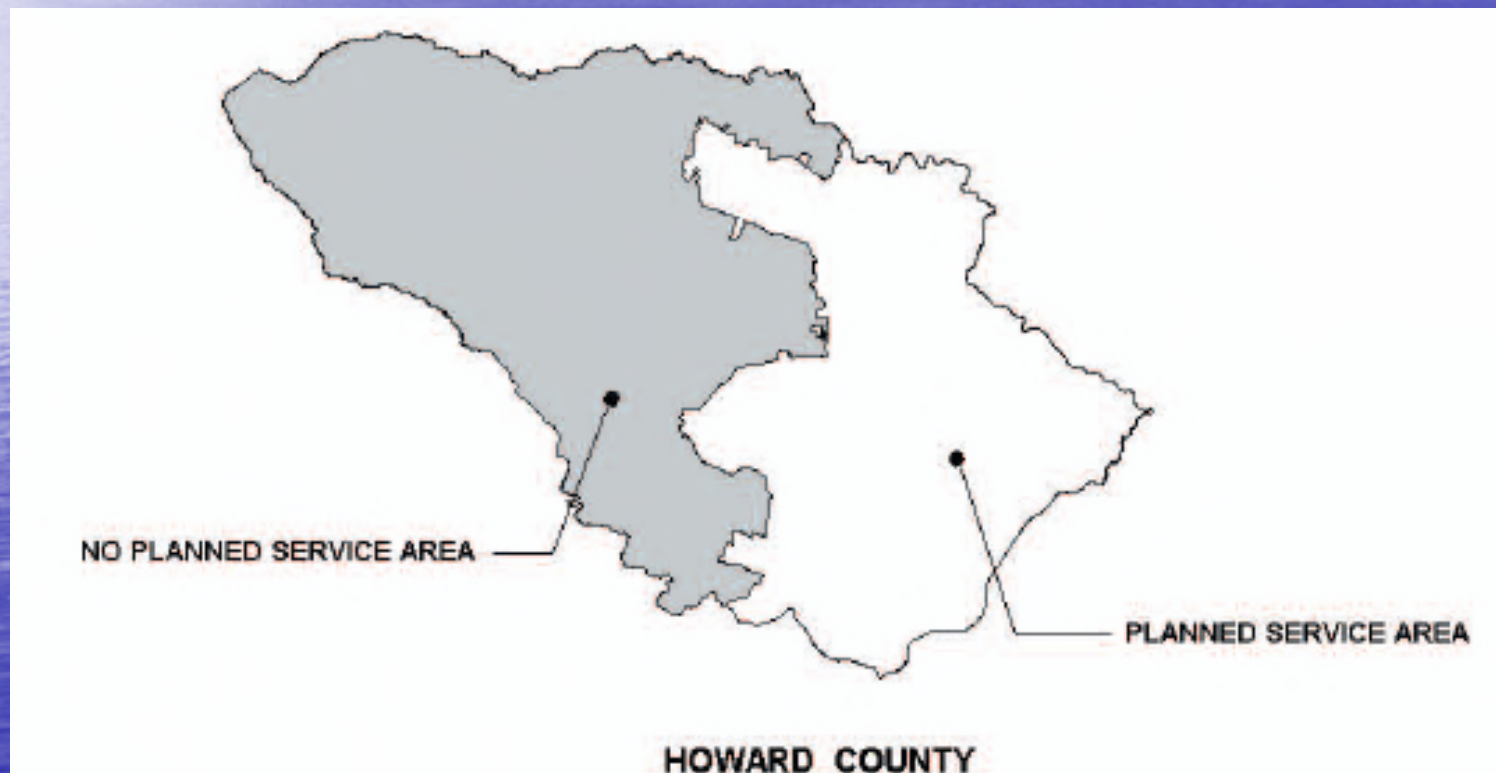


Howard County's Program for Shared Sewage Disposal Facilities

Rebecca D. Kugel
Program Manager
Department of Public Works
Howard County, Maryland

Metropolitan Service Area



Cluster Development

- Open space
- Forest conservation
- Agricultural preservation
- Promoted by Planning and Zoning
- What if the lots don't perc?

SSDF Acceptance Process

- Boundary plat
- Test pits, percolation testing
- Approval of percolation plat
- Acceptance into Water & Sewer Master Plan

Design Review

- Department of Planning and Zoning
 - Development Engineering Division
- Howard County Health Department
 - Environmental Health Division
- Department of Public Works
 - Bureau of Utilities



Legal Documentation

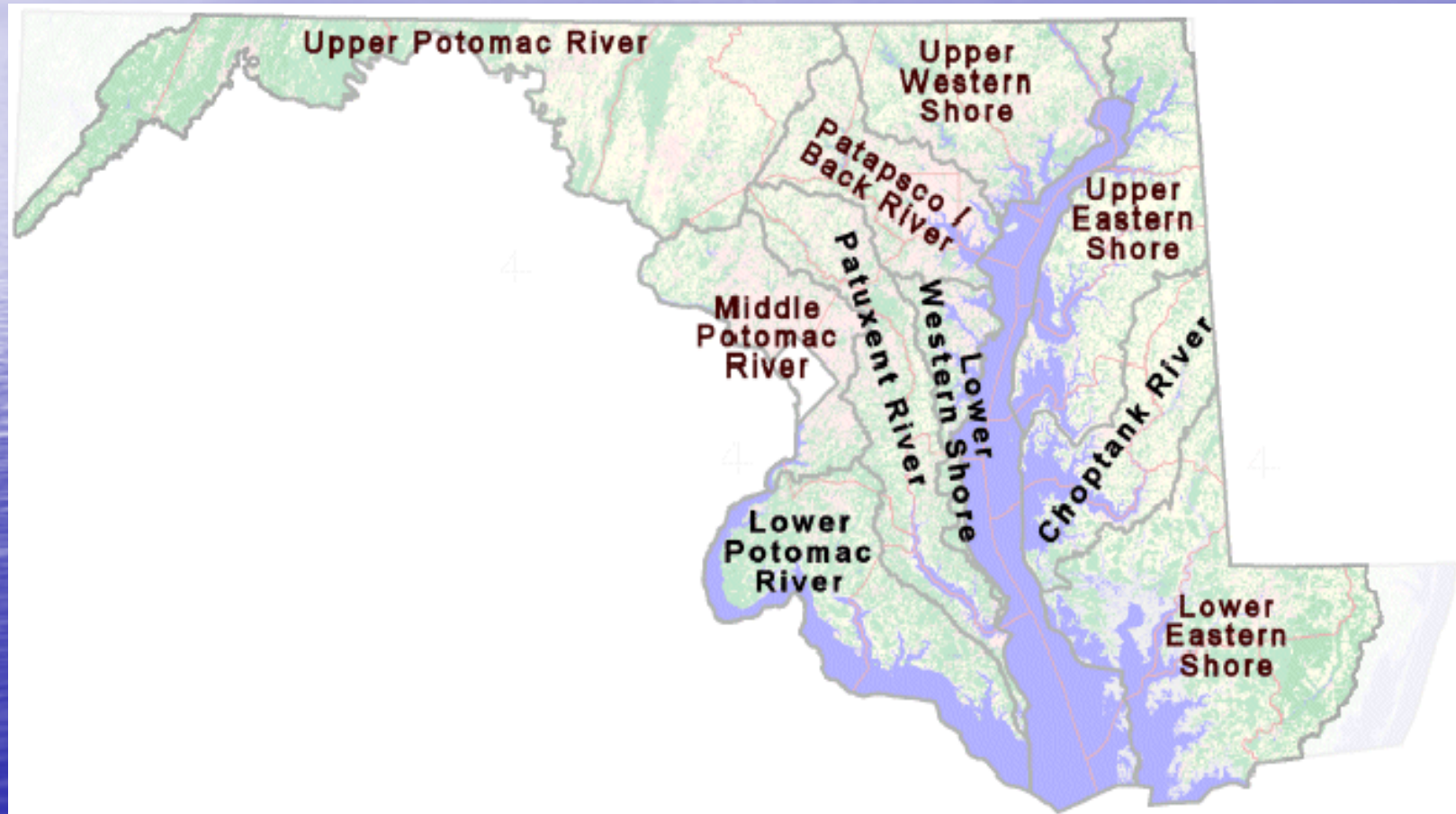
- Developer's Agreement
 - Perpetual incorporated homeowners association
- Declaration of Covenants
- Deed of Easement



Howard County's SSDF's as of October '06

SUBDIVISION NAME	MDE GROUNDWATER PERMIT	CONVENTIONAL or PRESSURE DOSE	PRE TREATMENT	NUMBER OF CONNECTED LOTS	Maximum Daily Flow	Average Daily Flow
Ashleigh Knolls	Yes - No effluent limits	pressure	Future	109	32,700	16,350
Brantwood	No	conventional	No	7	4,200	2,100
Friendship Lakes	No	conventional	No	5	3,750	1,875
Lyndonbrook	No	conventional	No	11	6,600	3,300
Riggs Meadow	No	conventional	No	4	2,400	1,200
Maple Ridge	No	conventional	No	7	4,200	2,100
Pindell Woods	No	conventional	No	2	1,200	600
Tridelphia Crossing	No	conventional	No	8	4,800	2,400
Paddocks East	No	conventional	YES	8	4,800	2,400

Chesapeake Bay Restoration



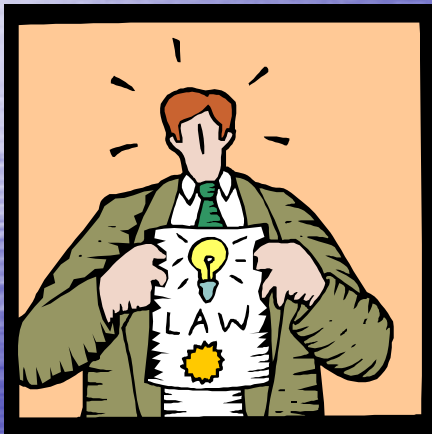
State Regulations

- SSDF's with flow $>10,000$ gallons per day require nutrient reduction
- Discharge limits:
 - 30 mg/L BOD
 - 30 mg/L TSS
 - 10 mg/L Total Nitrogen



New County Policy

- Revisions
 - Howard County Code
 - Developers' Agreements
 - Declaration of Covenants
 - Rights of Entry
 - Deeds of easements
 - Fee simple deeds



Howard County Code

Definition of SSDF

- Serves more than one residential lot
- Located on public right-of-way, BOE property or preservation parcel
- Subject to easements and covenants
- Consists of
 - Mainline collection sewers and appurtenances
 - Subsurface disposal area
 - Cables, wires control panels, etc.
 - And any related equipment, chemicals & materials

Howard County Code

- Only non-permitted SSDF's accepted into Water & Sewer Master Plan
- Grandfathering of eight permitted SSDF's

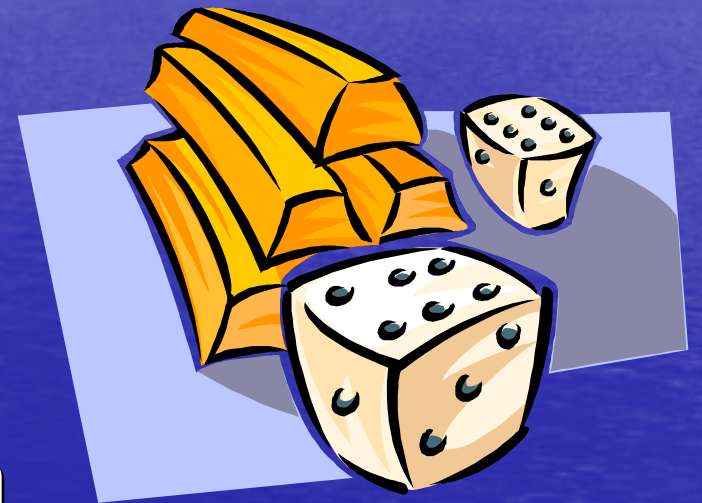


Howard County Code + Developer's Agreement

- Drain Field Requirements
 - Non-buildable (CoMar)
 - Owned in perpetuity by HOA
 - Subject to easements and covenants

Howard County Code + Developer's Agreement

- Lowering Risk
 - Sureties
 - Drainfield installation
 - On-site treatment operation



Sureties: County Code and Developer's Agreement

- Performance Surety
 - 100% of estimated construction cost
 - Guarantees time and satisfactory completion
 - Guarantees operation of facility in accordance with developer's agreement
 - Released at County acceptance of facility



Sureties: County Code and Developer's Agreement

- Payment Surety
 - 50% of estimated construction cost
 - Guarantees payment of debts owed for labor and materials used in construction of the facility
 - Released at County acceptance of facility



Sureties: County Code and Developer's Agreement

- Maintenance and Repair Surety
 - 50% of estimated construction cost
 - Guarantees repairs and remedy of damages
 - Retained for one year after County assumes ownership



Lowering Risk: Developer's Agreement

- Drainfield
 - 300% of drainfield capacity must be available (CoMar)
 - Developer installs 2 of the 3 required drainfield
 - Piping is run to and stubbed at third drainfield





Lowering Risk: Developer's Agreement

- Acceptance of facility by the County
 - Permitted systems:

The facility must operate for one year past 80% occupancy with NO PERMIT VIOLATIONS

- Non-Permitted systems:

The facility must operate for one year past 80% occupancy with developer addressing any mechanical or structural problems

Howard County Code + Code of Covenants

- Easement clarification
- Equipment ownership
Includes grinder pumps and
control panels
- Enforcement / authority



Howard County Code + Code of Covenants

- Responsibilities of property owners
“Do Not Flush List”
- Charges for damages
- Late payment penalties



Design Manual – Volume IV

- Grinder pumps
- Control panels
- Scada system
- ***<http://www.co.ho.md.us/DPW/DOCS/volumeIVpart1of3gencond.pdf>***

Design Manual – Volume II

- Design Manual
- Primary standard for treatment units = identical unit must have been operating and meeting permit in the State of Maryland for a minimum of one year.

Proposed permitted SSDF's

SUBDIVISION NAME	MDE GROUNDWATER PERMIT	CONVENTIONAL or PRESSURE DOSE	PRE TREATMENT	NUMBER OF CONNECTED LOTS	Maximum Daily flow	Average daily Flow
Chelsea Knolls	YES	Pressure	Yes	18	10,800	5,400
Musgrove Property	YES	Pressure	Yes	31	18,600	9,300
Peddicord: Shepard Manor	YES	pressure	Yes	11	9,000	4,500
Pickett Property (The Legacy)	YES	Pressure	Yes	21	12,600	6,300
Riverwood	YES	Pressure	Yes	18	11,000	5,500
Walnut Creek (Bassler Property)	YES	pressure	Yes	149	127,500	63,750
Walnut Grove	YES	pressure	Yes	87	65,250	32,625
Willow Pond	YES	Pressure	Yes	16	12,000	6,000

Proposed or newly operational non-permitted SSDF's

SUBDIVISION NAME	MDE GROUNDWATER PERMIT	CONVENTIONAL or PRESSURE DOSE	PRE TREATMENT	NUMBER OF CONNECTED LOTS	Maximum Daily flow	Average daily Flow
Edgewood Farms	No	conventional	no	8	4,800	2,400
Fulton Woods	No	Pressure	No	8	4,800	2,400
Henry Property (Maplewood Farms)	No	Conventional	No	6	4,200	2,100
Hopkins choice	No	pressure	No	15 (2 separate areas)	11,250	5,625
Kogan Trust Property	No	conventional	no	3	2,250	1,125
Marty Howard Property	No	conventional	yes (private units)	5	unknown	unknown
Neshawat Property	No	Pressure	yes (private units)	7	4,750	2,375
Owings Property Lot 3	No	conventional	No	7	4,200	2,100
Owings Property Lot 5	No	conventional	No	7	4,200	2,100
Paddocks East	No	conventional	yes (demonstration)	8	4,800	2,400
Willow Ridge	No	Conventional	no	5	7,500	3,750

Summary of program success

- Cooperation and input with various departments in the County for design & specifications
- The Office of Law and the County Council
- Ongoing communication with the Maryland Department of the Environment.
- Open communication between the County, homeowners' associations & the public
- The annual fees paid by the homeowners' must be accounted for and justified.

Further information

- The Utility Management Conference 2008
Water Environment Federation
American Water Works Association
- Howard County Code
http://library2.municode.com/default/home.htm?infobase=10016&doc_action=cleardoc
- Volume IV Design Manual
<http://www.co.ho.md.us/DPW/DOCS/volumeIVpart1of3gencond.pdf>.
- Beccy Kugel: bkugel@howardcountymd.gov or 410.313.2723

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